

and as if suffocated, by the emanations which escaped on raising the bed-clothes. The same evening a strong shivering fit occurred, her abdomen became very painful, pulse small and frequent, greenish vomiting, diarrhoea; at last all the symptoms most characteristic of puerperal fever. She died in forty-eight hours. At the autopsy the changes usually observed in cases of this nature were found, the tissues of the uterus being unaltered. M. Depaul was enabled, moreover, to establish that this young woman was not only not in any form of puerperal state, but that she presented all the signs of virginity.

A physician was engaged in making the post-mortem examination of a woman who had died of puerperal fever, when he was summoned to attend a labour. Precautions of every kind, change of clothes, washing, could not rid him of the smell that autopsies of this kind commonly leave on the hands. The labour took place in the usual way, but in the evening the patient was seized with a most severe puerperal fever, and died the next day. M. Depaul relates also another similar case in which the woman died in a few hours.—*L'Union Medicale*, March 3, 1855.

#### MEDICAL JURISPRUDENCE AND TOXICOLOGY.

56. *On the Effects of the Death of the Fetus on the Duration of Pregnancy.*—Dr. ROBERT JOHNS, formerly Assistant Master to the Lying-in Hospital, Dublin, makes (*Dublin Quarterly Journal of Medical Science*, Aug. 1855) some interesting observations on this subject, of which we shall present an abstract.

Mrs. M., aged 40, mother of four living and two premature still-born children, when pregnant for the seventh time, engaged Dr. J. to attend her in her then approaching confinement, which she stated would occur on the 11th of April, 1853, as she had menstruated on the 11th of July, 1852.

On the 12th of February this lady sent for him in consequence of uterine hemorrhage, which had set in on the previous evening, and was then continuing, but unaccompanied by pain.

"I made," says Dr. J., "a vaginal examination, and satisfied myself that she was not in labour. I also examined the abdomen most carefully, and then mentioned to her my conviction that she was not so long pregnant as she believed herself to be, for that the womb had only attained the size and position in the abdomen usual at six months of pregnancy; to which she replied that she had quickened on the 10th of November, when four months pregnant, and had continued to feel her child up to the end of the sixth month, but that since that period she was not sensible of its vitality. At this visit, the pulsations of the fetal heart were not discoverable, but the placental souffle was indistinctly audible, abrupt, and weak. The hemorrhage ceased, rest being the only means employed.

"On the 11th of the following month (March) I was again summoned to Mrs. M., the hemorrhage having returned on that morning, but without pain, as on the former occasion. She being very hysterical, I ordered an anodyne draught, which, together with rest in the recumbent posture, had the desired effect of calming her, and arresting the discharge. I embraced the opportunity of this visit to test the accuracy of my former prognosis, when I was much surprised at discovering that the uterus had not increased in size since my visit of the preceding month, its fundus then having reached as far as the umbilicus, which was protruded. My patient, however, insisted that she had become much larger, which fact, doubtless, was attributable to flatulency, which obtained to a great extent, and from which she suffered much. I then made a very careful stethoscopic examination of the whole abdomen, but I could not discover either the fetal pulsation or the bruit placentaire. Borborygmi were, however, very audible, but not in positions likely to mask the other sounds.

"The occasion of my next visit to this lady was when labour had set in, which

occurred at 9 o'clock P.M. of the 11th of April, 1853. The uterus then held the same position in the abdomen as on my two former visits. Once more a stethoscopic investigation was instituted, but not with happier results than before. Labour progressed slowly till half-past four o'clock A.M. of the 12th of April, when, with one violent pain, she brought forth the placenta with the membranes unruptured, containing about a pint of whitish fluid of the consistence and appearance of skimmed milk, in which was floating a dead, dried-up, and withered fœtus, apparently of about six months, presenting very much the aspect of having been for some time macerated in spirits of wine. The placenta and membranes were healthy, and neither they, the child, nor the liquor amnii exhaled the least unpleasant odour. There was not any hemorrhage or other bad symptom after delivery, and she recovered very quickly. Mrs. M. mentioned to me, in conversation, that she had enjoyed much better health than usual whilst carrying this child, and that she had gained flesh.

"The points of interest in this case, to which I wish to direct attention, are—

"1. The death of the child occurring at so late a period of uterine life, and the arrest of development in the uterus consequent thereon, not having terminated in labour before the full period of gestation.

"2. The absence of putrefaction in the fœtus and the secundines.

"3. Nature's initiatory efforts at the seventh and eighth months to throw off the foreign body, and her success by inducing labour at the ninth month, on a day corresponding to her abortive attempts, and to the last appearance of menstruation.

"1. It is a well-known fact to the practical accoucheur, that when a fœtus is blighted during the early months of utero-gestation, it, as a general rule, is expelled on its death, and that when the child dies after the expiration of the fifth month, labour sets in at a period of about ten or fifteen days from the occurrence, except in the case of twin pregnancy, where one child dies; then nature, in consideration of the living one, does not arrest gestation, or, in rare cases, she throws off the dead child, but permits its uterine companion to be fully developed.

"It is not very unusual for ova, when blighted early in pregnancy, to be carried in utero for months, or even years, but in most of, if not in all, such instances they are found converted into hydatids or moles; however, in the hydatid pregnancy, the uterus, instead of being arrested in development by the cessation of life in the ovum, is always more enlarged than in natural pregnancy.

"Not very long since I met with an ovum mostly converted into hydatids, which a lady had retained in utero for upwards of twelve months, and, as she had increased to a great size, much family disappointment was experienced at the result.

"Guillemot says: 'It often happens that labour does not set in immediately after the cause which has provoked it. That when the fœtus alone has experienced the effects, it declines and soon perishes; the disturbance which this mode of dying produces, by insensible degrees, in the placental and uterine circulation, gradually solicits uterine contraction, and prepares the womb for the expulsion of the fœtus. It is from this period that the cervix uteri begins to thin, and its os to open; at length the contractions become more energetic, and the dilatation consequent thereon allows the product of conception to escape; the time at which this expulsion occurs is generally about nine or ten days from the experienced accident; sometimes it occurs at a very distant period from the death of the fœtus. I remember having attended, in 1837, a young woman who, when five months pregnant, fell on the buttocks; after the shock which she experienced, she ceased to feel the movement of her child, which she had felt up to that time; notwithstanding two bleedings which I adopted, and all the precautions taken, pregnancy remained as if stationary, and it was not till the nine months had passed over that labour set in, when, after ten hours, the ovum was expelled entire. The fœtus was arrested at the state of development which it had at five months; the membranes were dense, and more solid than they ought to be if the child had been born alive; the placenta was withered.'

"A case very similar to Guillemot's occurred in my practice very lately, but the development was arrested at four and a half months. M. Martin relates six cases in which the child had died during the latter months, in four of which the child was thrown off within fifteen days from its death, in one within three weeks, and in one within four weeks from the same occurrence.

"In the summer of 1843 I was called to see, in consultation, a lady at the eighth month of pregnancy in the most violent puerperal convulsions, but which were got under by the ordinary means—venesection, cathartics, tartar emetic, &c. During my attendance, I was asked one day, by her husband, what was likely to be the issue of the case, and if she should have a return of the convulsions; to which I replied that, when labour set in, it might be attended with the fits, but that, as very active measures had been employed, I was in hopes she was pretty safe from them; but that his lady was then carrying a dead child, and that she should be confined of it within fifteen days. This latter part seemed to puzzle him very much, for he thought, as did also the nurse-tender, that, as labour had not then begun, she should go on to the full time. Suffice it, however, to say, that on the twelfth day from this conversation I was summoned in haste to Mrs. B., who was almost immediately on my arrival delivered of a dead and putrid child of about eight months. She had not any return of the eclampsia, and finally recovered.

"In speaking of twin conceptions, Guillemot remarks: 'If the womb cannot accommodate itself to the distension necessary for the growth, it happens sometimes that, instead of abortion taking place, one of the twins dies, and the other continues to grow beside its uterine brother, which, by the pressure it has undergone, becomes flattened.'

"I find the following in the work of Boivin and Duges: 'Sometimes, in twin pregnancy, one of the ova is affected, the other is developed as usual; in this case, the mole is expelled with the secundines of the healthy fetus, or some days afterwards; at other times this complication has induced premature labour; but it is of much rarer occurrence to witness the premature expulsion of the mole at the seventh month, and the subsequent natural progress of gestation. It is remarkable that miscarriage is not the most usual event in such pregnancies, and that the changes induced in one of the ova are not communicated to the other.'

"M. Martin says: 'In the case of twin conception, there may be common or separate membranes; one of the fetuses may die, at a more or less advanced period of pregnancy, without the life of the other being compromised, or even its health injured, or labour being induced.' He then relates three cases illustrative of this fact.

"M. Perret records one such case. M. Bugnard also mentions another. M. Sarrajeane states that he met with two similar cases.

"While I was Assistant Master to the Dublin Lying-in Hospital, a female in the institution brought forth a full-grown and healthy child, at the full time, in whose membranes was contained a blighted fetus of about two and a half months, but not putrid. May not such cases as this explain the so-called instances of superfetation?

"M. Biliotel narrates the case of a lady who, at the end of the seventh month of pregnancy, brought forth a still-born child, and who, in two months after, was safely delivered of a healthy, full-grown female infant. It is more than probable that the premature labour here alluded to was induced by a fall on the ice, which the lady is stated to have experienced about fifteen days previously.

"I have at present under my care a lady who, when three months pregnant, expelled a fetus, but not any placenta, although all attempts, *per fas et nefas*, were resorted to—hot baths, &c. In about two months after the abortion, being greatly alarmed at the increase in her size, and the retention of the after-birth, she came to Dublin to consult me, when, to her great surprise, I told her that she was still pregnant, and carrying a living child, at about the fifth month of utero-gestation. She is now enjoying excellent health, and is progressing favourably to term.

"2. I find cases recorded by Martin, Perret, and Raillard, in which the child had been carried for a period of time varying from two to six months, all pre-

sending, on expulsion, appearances very similar to the one now under consideration, but in each the death of the fœtus took place before the fifth month. I am not, however, aware of any having been otherwise than decomposed, who had perished at so late a period as six months, if carried for any length of time beyond its demise: the longest period of which detention had been one month (except in the case of twins, as before mentioned), and the most usual period about a fortnight.

"M. Martin, of Lyons, says: 'When the fœtus dies from the second to the fifth month, it fades, wrinkles, and dries up; it then resembles a small yellow mummy, or very much a fœtus for a long time macerated in alcohol; the placenta often participates in this state of withering, and the liquor amnii is wanting, or is replaced by a thick humour like earth, which incrusts the fœtus;' but, says the same author, 'when the child dies from the fifth month till the ordinary period of gestation, the little corpse mortifies, increases in size, and exhales a horrible fetidity which characterizes putrid fermentation.'

"3. The attempts of nature alluded to under this head are, I conceive, negative proofs of the rarity of the case.

"It may be asked, what grounds have I for stating that the child in Mrs. M.'s case ceased to live at the time specified? To which I would advance the following:—

"1. The mother having ceased to feel the fœtal movements after the sixth month, she having done so up to that period.

"2. The size of the uterus having corresponded to the same period of pregnancy.

"3. The pulsations of the fœtal heart not having been audible at the seventh month, and, at the same time, the placental soufflet having been very indistinct, and its character, as before observed, having been much altered: a change mentioned by Kennedy as frequently obtaining in this sound for some short period after the death of the child, and previous to its final cessation—of the accuracy of which I can confidently speak from long and repeated experience.

"4. Not any sound having been discoverable in the abdomen after the seventh month.

"5. The size of the child and placenta, when expelled, having corresponded to that of one of six months' pregnancy.

"The popular belief of the size of the child having an effect upon the corpulency of the mother, seems to gain some support from this case.

"The following aphorism of Mauriceau is, I think, very pertinent here: 'The size,' says he, 'of the dead aborted fœtus does not always correspond to the pregnancy, for it ordinarily has, when expelled from the womb, only the size to which it had attained when its vitality was destroyed.'

"I conceive that in the contemplation of this case is involved a very serious and important question—what effect has the death of the child on the duration of pregnancy? This, at a superficial view, may appear of little moment; but, on deeper reflection, it shall become self-evident that a false prognosis in such a case as the one before us may induce very fearful consequences to the physician, or may embitter the happiness of families by causing wounds that never may be healed, separations never to be reunited. In illustration, the following case is by no means improbable:—

"Captain B., R.N., marries, and leaves his youthful bride, to join his ship, three weeks after his marriage, she then being pregnant, but without his or her own knowledge. Gestation progresses favourably for six months, at the end of which period the child ceases to live, but is retained within the womb till the full period of natural pregnancy; this viscus not having enlarged after the child's death, the mother never felt her child, nor was she at all conscious of her condition, being necessarily inexperienced in such matters, besides being, as she supposed, unwell each month (which discharge may have depended upon ulceration of the os uteri upon nature's attempts to throw off the dead fœtus, which had become a foreign body, or upon many other causes too numerous here to relate). However, at the end of the ninth month her husband returns, expecting to find a young and spotless wife, to be alike participator of his joys and griefs, when, alas! to his horror and dismay, he finds that she has just given

birth to a six months' child, but dead, and, in other respects, like Mrs. M.'s baby. Is it not natural that he at once accuses his lady of infidelity? and what protestations of hers as to her innocence, be they never so solemn, shall convince him that she still is not guilty? This is the juncture at which the physician may be the balm or the wormwood; therefore, upon him rests the responsibility of deciding the question. But if he be ignorant of the possibility of a dead child being carried in utero for such a period, he condemns the lady, and, I need hardly say, the consequence is too apparent. If, however, subsequently, the ill-judged, ill-treated, and unfortunate lady's innocence be proved, what shall become of the reputation of that physician who unhesitatingly pronounced her guilty? But if no such happy result should ensue to the lady, what shall and ought to be the feelings of that man, when, in after years, he shall discover his ignorance, and think upon the mischief it had entailed upon society?"

57. *On Death by Stifling*.—Of 116 new-born infants, the cause of whose death M. TARDIEU was called upon to investigate, he found that 58 had died stifled. The signs of this mode of death not appearing to him sufficiently set forth, he has performed a great number of experiments, varying as much as possible the mode of producing the suffocation—such as occlusion, compression of the parietes of chest and abdomen, burying alive, or confinement in a limited space. He has also compared the signs of death from suffocation with those of other kinds of asphyxia.

The change to which most importance should be attached is the dissemination of sanguineous extravasations under the pleura and hairy scalp. In whatever degree, and in however small numbers these may be present, they suffice to positively determine that suffocation has been really the cause of death. To these lesions are often added, but in a less constant manner, ecchymosed spots beneath the pericardium, the rupture of some of the superficial pulmonary vesicles, and the presence of a fine white or slightly rose-coloured foam in the air-passages. The same observation applies to the external signs of violence, as flattening of the nose and lips, excoriation of the integuments, etc. The multiplicity and extent of such lesions will indicate, if not the duration, at least the energy, of the resistance offered by those who died stifled. These signs permitting us to distinguish with certainty death from suffocation, from death from hanging or drowning, and may often be of great service in preventing our confounding homicide with suicide.—*Med. Times and Gaz.*, Sept. 1, from *Bulletin de l'Académie*, tom. xx. p. 97.

58. *Poisoning by Colchicum*.—By Dr. CASPER and JULES ROUX.—Cases of poisoning by colchicum are rare, and we are desirous of bringing under our readers' notice the accounts of no less than nine autopsies, made under the most favourable circumstances for examination and comparison. Four of these cases came under Dr. Casper's notice last year at Berlin; but as he was only concerned juridically in the examination of their bodies, he does not furnish much account of the symptoms exhibited during life. Four hearty young men having stolen some tincture of colchicum seeds, they each drank a glass of it, believing it to be bitter "schnaps." Vomiting, purging, and great prostration ensued, the intellect remaining quite clear. They took the poison on the 20th February, and by the 22d they were all dead. Dr. Casper describes each examination in detail, and then sums up the appearances under two categories:—

1. Appearances which were observed in all the bodies, and therefore may be received as signs of colchicum poisoning. (a) Putrefaction did not occur earlier than usual. (b) The fluids contained in the stomach, and the urine exhibited strong acid reaction. (c) The blood was of a thick consistence, and of a dark cherry-red colour. Dr. Casper has met with this appearance of the blood in sulphuric acid and other poisoning. (d) Immense distension of the vena cava inferior. (e) The kidneys were loaded with blood. (f) The bladder contained more or less urine. (g) There was no hyperæmia of the liver. (h) The right side of the heart contained much blood, but the lungs were in their normal state. (i) There was great congestion of the brain. 2. Among the organs, the appearances of which did not correspond after death, foremost was

the stomach. In one case there were the signs of a true gastritis and commencing enteritis; in another, fulness of vessels and ecchymosis, due evidently to stasis; and in the two others the organ was quite normal in appearance. Thus these four cases should teach us caution, by showing how much individual circumstances may influence the appearances caused by poison in the organ which first receives it. The varying appearances of the contents of the stomach and of the gall-bladder must also be regarded as accidental.

The cases related by M. Jules Roux occurred some years since, in the persons of five convicts at Toulon, to each of whom 60 grammes of tincture of colchicum were given in error for cinchona. In about two hours they were seized with colic, purging, and vomiting. Excessive prostration ensued, and they complained of burning heat along the œsophagus and in the abdomen, together with insufferable thirst. The intellect, sensation, and movement remained unimpaired to the last. Three died during the night of the day on the morning of which the poison was swallowed, and the other two expired the next morning. At the *post-mortem* examinations, made 36 hours after the death of the last patient, the vermilion redness of the muscles of the splanchnic cavities, and the remarkable state of preservation of the bodies, struck all present. The mucous membrane of the stomach and intestinal canal was found much softened, and at intervals reddened, but nowhere ulcerated. The spleen, liver, and kidneys were much gorged with blood, and the bladder, containing a little urine, exhibited a few red patches. The heart was flaccid, and contained a little dark blood and a few coagula. The vena portæ, and vena cava inferior were distended with blood of the consistency and colour of red currant jelly. The lungs were in a normal condition. The cerebro-spinal axis exhibited great injection, and general, well-marked ramollissement. From the progress and results of these cases, M. Roux believes with Giacomini and the Italian school, that the colchicum operates by its hypæsthenizing effects upon the nervous system rather than by inducing inflammatory action of the digestive passages.

Dr. Casper enters at some length into the question of the detection of *colchicin* by Stas's process in the bodies of persons poisoned by colchicum, which he declares is quite possible. We must refer our readers to the paper for the steps of the analysis pursued by M. Schacht. We may, however, mention that this chemist calculates that the fatal doses of colchicum in these fatal cases did not exceed from two-fifths to half of a grain.—*Med. Times and Gaz.*, June 16, 1855, from *Casper's Wochenschrift*, Jan. 1855, and *L'Union Médicale*, 1855, No. 36.

59. *On Antidotes to Poisoning by Copper*.—Dr. SCHRADER, of Gottingen, having undertaken an experimental investigation into this subject, arrives at the following conclusions:—

1. Hydrated magnesia is just as little of an antidote as the alkaline carbonates, the hydrated oxide of copper that is formed being gradually dissolved by the stomacheal and intestinal acids. Magnesia may, however, retard the effects of the poison, although it cannot entirely counteract them.

2. The hydrated sulphuret of iron decomposes the salts of copper immediately, and the sulphuret of copper is well-nigh insoluble in the juices of the alimentary canal. How far the sulphuret of iron may act disadvantageously, by liberating sulphuretted hydrogen gas, further experience is required to show.

3. The reductive power of sugar takes place, at the temperature of our bodies, far too slowly to be available in acute copper poisoning. It may be useful, when taken abundantly in water, to excite or favour vomiting.

4. Of all pharmaceutical substances ferrocyanide of potass is the best. Large quantities may be taken without material disadvantage to the economy; the ferrocyanide of copper, which is immediately produced, being very insoluble.

5. Milk and white of egg neutralize poisonous salts of copper, and have the advantage of being easily obtained. Care should be taken to evacuate as rapidly as possible the albuminates and caseates of copper thus produced.—*Med. Times and Gaz.*, May 5, 1855, from *Buchner's Repertorium*, 1855, No. 2.